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10/655,710	09/04/2003	Michael S. Ripley	42P16794	7177

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EXAMINER	
CHAI, LONGBIT	

ART UNIT	PAPER NUMBER
2131	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/655,710	RIPLEY, MICHAEL S.	
	Examiner	Art Unit	
	Longbit Chai	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 April 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Currently pending claims are 1 – 26.

Response to Arguments

2. Applicant's arguments with respect to the subject matter of the instant claims have been fully considered but are not persuasive.

3. As per each of independent claims regarding the rejection of claims 1, 6, 10, 13, 17, 20, and 24 under 35 U.S.C. § 112, second paragraph, Applicant asserts "the claims clearly and precisely recite that the sensitivity level for the recording device is more sensitive than the sensitivity level for the playback device and indicates a person of ordinary skill in the art would have no trouble understanding precisely what is claimed with regard to the sensitivity level of the recording device, relative to the playback device".

Examiner respectfully disagrees because the issue is not merely due to the meaning of the claim language "more sensitive" to one ordinary skilled in the art; but, instead, the invention of the subject matter regarding "the first sensitivity is more sensitive than the second sensitivity" is critically dependent upon, first of all, the resolution and finding of the "optimal difference level of the similarity used for detecting the desired watermark between two measurements"; otherwise, a more sensitive measurement is merely meant as "being more likely to detect the watermark", according to the disclosure of the instant specification (SPEC: PG-PUB / Para [0015]) and as such

it is also meant more likely resulting in "false positive" detection caused by the measurement device such that defeating the original purpose of invention subject matters to prevent copy right violation of digital content and thus rendering the scope of claimed subject matter unclear and useless.

One skilled in the art would not know how to make and use the same claimed invention to control the optimal sensitivity level to render the claimed subject matter concrete and useful and as such the claimed subject matter is not well technologically embodied and is merely an abstract idea in lack of patentable features.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 6, 10, 13, 17, 20 and 24 (& dependent claims 5, 9, 12, 16, 19, 23 and 26) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite because the definition of claim language "more sensitive" is not well defined and supported in a patentable manner based upon the disclosure of the instant specification.

Examiner notes this is because the issue is not merely due to the meaning of the claim language "more sensitive" to one ordinary skilled in the art; but, instead, the invention of the subject matter regarding "the first sensitivity is more sensitive than the second sensitivity" is critically dependent upon, first of all, the resolution and finding of the concrete "optimal difference level of the similarity used for detecting the desired

watermark between two measurements"; otherwise, a more sensitive measurement is merely meant as "being more likely to detect the watermark", according to the disclosure of the instant specification (SPEC: PG-PUB / Para [0015]) and as such it is also meant more likely resulting in "false positive" detection caused by the measurement device such that defeating the original purpose of invention subject matters to prevent copy right violation of digital content and thus rendering the scope of claimed subject matter unclear, not concrete and useless.

One skilled in the art would not know how to make and use the same claimed invention to control the optimal sensitivity level to render the claimed subject matter concrete and useful and as such the claimed subject matter is not well technologically embodied and is merely an abstract idea in lack of patentable features.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levy et al. (U.S. Patent 2003/0103645).

As per claim 1, 6 and 10, Levy teaches a system for detection of a watermark in digital content, comprising:

a recording device having a first watermark detection component of a first sensitivity for detecting the watermark in digital content (Levy: Para [0004] and Para [0011]); and

a playback device having a second watermark detection component of a second sensitivity for detecting the watermark in a digital content recording made by the recording device (Levy: Para [0004] and Para [0038] last two sentences).

wherein the first sensitivity is more sensitive than the second sensitivity (Levy : Para [0085] Last Sentence, Para [0004], Para [0007] – [0008], Para [0027] Line 1 – 5 and Para [0085] Line 10 – 20: It would have been obvious to a person of ordinary skill in the art at the time the invention was made to recognize Levy reference that the first sensitivity is more sensitive than the second sensitivity because (a) Examiner notes the sensitivity of watermark detection is broadly interpreted as being related to the number of a plurality of multiple audio channels (or a collection of temporal portions of frames (i.e. the number of time frames), or a spatial portions of frames (i.e. the number of blocks of pixels)) need to be completely checked (Levy: Para [0008]) on a recording device to assure the complete coverage of watermark detections so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the playback device (Levy: Para [0085]) -- that is also consistent with the disclosure of the instant specification (SPEC: PG-PUB / Para [0015]) indicating a more sensitive measurement is merely meant as being more likely

to detect the watermark. Besides, Levy teaches (b) watermarks may have composite media signals (e.g. a collection of multiple audio channels, a collection of temporal portions of frames, or a spatial portions of frames), (c) watermark messages must be first detected and converted to a copy control message (Para [0085] Line 10 – 13), and subsequently (d) the content may be prevented from being passed into a player if a valid control message is not generated by the recorder (Para [0085] Line 15 – 20)).

As per claim 2, Levy teaches the digital content is unencrypted (Levy: Para [0037]: text file).

As per claim 3 and 7, Levy teaches the first sensitivity causes the first watermark detection component to check multiple channels of the digital content for the watermark when the digital content comprises multi-channel audio data (Levy: Para [0027] and Para [0006]: multimedia, as used in Levy, refers to any data that has a collection of two or more different media types such as music (or other audio) that has multiple audio channels. The method decodes watermarks in the media signals, uses the watermarks from the different media signals to control processing of the multimedia content such as using the watermark in one audio channel, such as the audio track, to locate the watermark in another audio channel. Therefore, Examiner notes multiple channels are checked in multi-channel audio data).

As per claim 4, 8 and 11, Levy teaches first sensitivity causes the first watermark detection component to check the digital content for the watermark more often than the

second watermark detection component (Levy: Para [0085] Last Sentence and Para [0008]: referred to claim 1, "more often" is interpreted as checking w.r.t. a collection of temporal portions of frames (i.e. the number of time frames), or a spatial portions of frames (i.e. the number of blocks of pixels)) need to be completely checked (Levy: Para [0008]) on a recording device to assure the complete coverage of watermark detections so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the playback device (Levy: Para [0085]).

As per claim 5, 9 and 12, Levy teaches the first sensitivity for the first watermark detection component causes the recording device to check the digital content for the watermark with a computational precision less than a computational precision of the second watermark detection component (Levy: Para [0085] Last Sentence: referred to claim 1, the sensitivity of detecting the watermark of a recording device should be evidently more sensitive (i.e. less computational precision) than that of a playback device because it would be more likely that the recording device will detect the watermark with a more sensitive watermark detector in the first place so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the player).

6. Claims 13 – 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior-art (U.S. Patent 2005/0053238), hereafter referred as AAP, in view of Levy et al. (U.S. Patent 2003/0103645).

As per claim 13 and 20, AAP teaches a method for processing unencrypted digital content in a recording device for subsequent playback by a playback device comprising:

making an unencrypted recording of the unencrypted digital content when the watermark is not detected in the unencrypted digital content (AAP: Figure 1 / Element 26 & 28); and

making an encrypted recording of the unencrypted digital content when the watermark is detected in the unencrypted digital content (AAP: Figure 1 / Element 18 & 20).

attempting to detect a watermark in the unencrypted digital content by a watermark detection component of the recording device (AAP: Figure 1 / Element 10 & 14).

However, AAP does not teach the detection being more sensitive for detecting the watermark than a detection operation of a watermark detection component of the playback device.

Levy teaches the detection being more sensitive for detecting the watermark than a detection operation of a watermark detection component of the playback device (Levy : Para [0085] Last Sentence, Para [0004], Para [0007] – [0008], Para [0027] Line

1 – 5 and Para [0085] Line 10 – 20: Examiner notes it would have been obvious to a person of ordinary skill in the art at the time the invention was made to recognize Levy reference that the first sensitivity is more sensitive than the second sensitivity because Levy teaches (a) watermarks may have composite media signals (e.g. a collection of multiple audio channels, a collection of temporal portions of frames, or a spatial portions of frames), (b) watermark messages must be first detected and converted to a copy control message (Para [0085] Line 10 – 13), and subsequently (c) the content may be prevented from being passed into a player if a valid control message is not generated by the recorder (Para [0085] Line 15 – 20), (d) Therefore, Examiner notes the sensitivity of watermark detection is broadly interpreted as being related to the number of a plurality of multiple audio channels (or a collection of temporal portions of frames (i.e. the number of time frames), or a spatial portions of frames (i.e. the number of blocks of pixels)) need to be completely checked (Levy: Para [0008]) on a recording device to assure the complete coverage of watermark detections so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the playback device (Levy: Para [0085])).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Levy within the system of AAP because Levy teaches integrating watermark embedder and detector systems in multimedia data for content authentication and also provide flexible copy protection alternatives by either allowing or preventing the digital content being passed to a

playback device as a result of the watermark detection at the recording device (Levy: Para [0023] and Para [0085] Line 15 – 20).

As per claim 17 and 24, AAP teaches method of processing, in a playback device, a digital content recording made by a recording device comprising:

playing the digital content recording when the watermark is not detected (AAP: Figure 1 / Element 24 & 30); and

making an encrypted recording of the unencrypted digital content when the watermark is detected in the unencrypted digital content (AAP: Figure 1 / Element 18 & 20).

not playing the digital content recording when the watermark is detected (AAP: Figure 1 / Element 30: WM detected, do not play).

recognizing whether the digital content recording is encrypted or unencrypted; attempting, by a watermark detection component of the playback device, to detect a watermark in the digital content recording when the digital content recording is unencrypted (AAP: Figure 1 / Element 10 & 14).

However, AAP does not teach the detection being less sensitive for detecting the watermark than a detection operation of a watermark detection component of the recording device.

Levy teaches the detection being less sensitive for detecting the watermark than a detection operation of a watermark detection component of the recording device (Levy : Para [0085] Last Sentence, Para [0004], Para [0007] – [0008], Para [0027] Line

1 – 5 and Para [0085] Line 10 – 20: Examiner notes it would have been obvious to a person of ordinary skill in the art at the time the invention was made to recognize Levy reference that the first sensitivity is more sensitive than the second sensitivity because Levy teaches (a) watermarks may have composite media signals (e.g. a collection of multiple audio channels, a collection of temporal portions of frames, or a spatial portions of frames), (b) watermark messages must be first detected and converted to a copy control message (Para [0085] Line 10 – 13), and subsequently (c) the content may be prevented from being passed into a player if a valid control message is not generated by the recorder (Para [0085] Line 15 – 20), (d) Therefore, Examiner notes the sensitivity of watermark detection is broadly interpreted as being related to the number of a plurality of multiple audio channels (or a collection of temporal portions of frames (i.e. the number of time frames), or a spatial portions of frames (i.e. the number of blocks of pixels)) need to be completely checked (Levy: Para [0008]) on a recording device to assure the complete coverage of watermark detections so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the playback device (Levy: Para [0085])).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Levy within the system of AAP because Levy teaches integrating watermark embedder and detector systems in multimedia data for content authentication and also provide more flexible copy protection alternatives by either allowing or preventing the digital content being passed

to a playback device as a result of the watermark detection at the recording device based on the validity of copy control message derived from the watermark messages).

As per claim 14 and 21, AAP as modified teaches the first sensitivity causes the first watermark detection component to check multiple channels of the digital content for the watermark when the digital content comprises multi-channel audio data (Levy: Para [0027] and Para [0006]: multimedia, as used in Levy, refers to any data that has a collection of two or more different media types such as music (or other audio) that has multiple audio channels. The method decodes watermarks in the media signals, uses the watermarks from the different media signals to control processing of the multimedia content such as using the watermark in one audio channel, such as the audio track, to locate the watermark in another audio channel. Therefore, Examiner notes multiple channels are checked in multi-channel audio data).

As per claim 15, 18, 22 and 25, AAP as modified teaches first sensitivity causes the first watermark detection component to check the digital content for the watermark more often than the second watermark detection component (Levy: Para [0085] Last Sentence and Para [0008]: referred to claim 1, "more often" is interpreted as checking w.r.t. a collection of temporal portions of frames (i.e. the number of time frames), or a spatial portions of frames (i.e. the number of blocks of pixels)) need to be completely checked (Levy: Para [0008]) on a recording device to assure the complete coverage of watermark detections so that the recording device would not miss a watermark in the

first place and a valid copy control messages can be properly generated for the playback device (Levy: Para [0085]])).

As per claim 16, 19, 23 and 26, AAP as modified teaches the first sensitivity for the first watermark detection component causes the recording device to check the digital content for the watermark with a computational precision less than a computational precision of the second watermark detection component (Levy: Para [0085] Last Sentence: referred to claim 1, the sensitivity of detecting the watermark of a recording device should be evidently more sensitive (i.e. less computational precision) than that of a playback device because it would be more likely that the recording device will detect the watermark with a more sensitive watermark detector in the first place so that the recording device would not miss a watermark in the first place and a valid copy control messages can be properly generated for the player).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Longbit Chai whose telephone number is 571-272-3788. The examiner can normally be reached on Monday-Friday 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Longbit Chai
Examiner
Art Unit 2131

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